# CONTENTS

**Volume 16, Number 1**

**Critical reviews and theoretical articles**

Pharmacological manipulations of aggressiveness and impulsiveness in healthy volunteers — 1
A. J. Bond

International regulation of benzodiazepines — 9
I. Khan

Anxiolytics not acting at the benzodiazepine receptor: beta blockers — 17
P. Tyrer

**Full-length original papers**

*Clinical studies*

Quantitative assessment of psychomotor activity in patients with neuroleptic-induced akathisia — 27
G. Gardos, M. H. Teicher, J. F. Lipinski Jr., J. D. Matthews, L. Morrison, C. Conley and J. O. Cole

Fluid intake patterns in schizophrenia and normal controls — 39
W. B. Lawson, S. Roy, M. Parent, J. Herrera, C. Karson and L. Bigelow

β-Phenylethylamine and noradrenergic function in depression — 45
M. Nakagawara

Effects of zopiclone on subjective evaluation of sleep and daytime alertness and on psychomotor and physical performance tests in athletes — 55
M. Tafti, A. Besset and M. Billiard

Glucocorticoid receptor binding in three different cell types in major depressive disorder: lack of evidence of receptor binding defect — 65
A. A. Wassef, M. O'Boyle, R. Gardner, R. M. Rose, A. Brown, A. Harris, H. Nguyen and W. J. Meyer, III

Methodological requirements for clinical trials in refractory epilepsies — our experience with zonisamide — 79
K. Yagi and M. Seino

*Experimental laboratory studies*

Effects of nitrendipine, chlordiazepoxide, flumazenil and baclofen on the increased anxiety resulting from alcohol withdrawal — 87
S. E. File, A. Zharkovsky and P. K. Hitchcott

Molecular and cellular mechanism of neuronal degeneration caused by nerve growth factor deprivation approached through PC12 cell culture — 95
T. Koike

Chronic treatment with ethanol alters the physiological action of nicotine — 107
M. J. Majchrzak and S. C. Dilsaver

# CONTENTS

## Volume 16, Number 1, *continued*

Evaluation of learning and memory mechanisms employing elevated plus-maze in rats and mice 117
A. C. Sharma and S. K. Kulkarni

**Case report**

Tardive dystonia and ceruletide effects: case report 127
M. Sugawara, H. Iizuka, A. Kawana and J. Suzuki

Instructions to contributors i

Forthcoming papers v

## Volume 16, Number 2

**Critical reviews and theoretical articles**

Low dose neuroleptanxiolysis in anxiety states 135
K. Heinrich and E. Lehmann

Neuroscience findings in AIDS: a review of research sponsored by the National Institute of Mental Health 145
W. Pequegnat, N. A. Garrick and E. Stover

Oriental medicine as therapy for resistant depression: use of some herbal drugs in the Far East (Japan) 171
K. Sarai

Nicotine as a cognitive enhancer 181
D. M. Warburton

**Full-length original papers**

*Clinical studies*

Comparison of haloperidol and reduced haloperidol plasma levels in four different ethnic populations 193
M. W. Jann, W.-H. Chang, Y. W. F. Lam, H. G. Hwu, H.-N. Lin, H. Chen, T. Y. Chen, S.-K. Lin, C.-P. Chien, C. M. Davis, L. Ereshefsky, S. R. Saklad, A. L. Richards and W. M. Schulteis

Plasmatic somatostatin as a marker of positive symptoms of schizophrenia 203
J. Saiz-Ruiz, J. L. Carrasco, M. Martin, J. Manzanares and A. Hernanz

*Experimental laboratory studies*

Diazepam antagonizes effects on dopamine metabolism produced by PCP receptor agonists 211
M. B. Bowers, Jr and J. B. Morton

Central dopamine involvement in experimental gastrointestinal injury 217
G. B. Glavin

Cholinergic blockade with scopolamine in adult cats. Effects on the behaviors evoked by apomorphine and amphetamine 223
E. Motles, A. Gomez, M. Tetas, M. Gonzalez and C. Acuña

## Volume 16, Number 2, *continued*

The role of the nucleus accumbens in sensitization to drugs of abuse 237
J. D. Steketee, B. A. Sorg and P. W. Kalivas

**Case reports**

The effect of ritanserin on treatment-resistant neuroleptic induced akathisia: case reports 247
C. H. Miller, M. Hummer, R. Pycha and W. W. Fleischhacker

Instructions to contributors i

Forthcoming papers v

## Volume 16, Number 3

**Critical reviews and theoretical articles**

Muscarinic receptors, phosphoinositide metabolism and intracellular calcium in neuronal cells 253
D. G. Lambert, R. J. H. Wojcikiewicz, S. T. Safrany, E. M. Whitham and S. R. Nahorski

**Full-length original papers**

*Clinical studies*

Gepirone, a selective serotonin ($5HT_{1A}$) partial agonist in the treatment of major depression 271
J. D. Amsterdam

Early findings from a pharmacokinetically designed double-blind and placebo-controlled study of lithium for adolescents comorbid with bipolar and substance dependency disorders 281
B. Geller, T. B. Cooper, H. E. Watts, C. M. Cosby and L. W. Fox

Nortriptyline response in elderly depressed patients 301
S. Kanba, K. Matsumoto, M. Nibuya, E. Suzuki, N. Konoshita, F. Shintani and G. Yagi

REM sleep, age, depression, and the cholinergic REM induction test with RS 86 311
D. Riemann and M. Berger

Change in the cytoskeletal system in fibroblasts from patients with familial Alzheimer's disease 317
M. Takeda, Y. Tatebayashi and T. Nishimura

*Experimental laboratory studies*

Postnatal development of parvalbumin immunoreactivity in axon terminals of basket and chandelier neurons in monkey neocortex 329
M. Akil and D. A. Lewis

Effect of IAP and chronic antidepressant administration on the $5HT_{1A}$ receptor in rat cortical membranes 339
J. Akiyoshi, K. Tsuchiyama, K. Yamada, Y. Mizobe, M. Nakamura and H. Nagayama

## CONTENTS

### Volume 16, Number 3, *continued*

Influence of some dopaminergic agents on antinociception produced by quinine in mice 351
G. Amabeoku, R. Ewesuedo and F. Abuh

Behavioral tolerance to one effect of the serotonergic agonist TFMPP 361
H. Frances and C. Monier

Age-related differences of cholecystokinin receptor binding in the rat brain 369
J. Harro and L. Oreland

Actions of sex hormones on the brain 377
C. Hiemke, M. Banger, R. Kohsik, M. Hundt and R. Ghraf

Aspects of animal experiments for evaluation of cognitive enhancers: in particular, the behavioral characteristics of Mongolian gerbils 389
H. Kuribara and S. Tadokoro

Lithium reduced synaptic transmission and increased neuronal excitability without altering endogenous serotonin, norepinephrine and dopamine in rat hippocampal slices *in vitro* 397
J.-C. Lacaille, S. Cloutier and T. A. Reader

Association of functional alteration in intracellular signal transduction systems with the occurrence of up-regulation of muscarinic receptors in primary cultured neurons 413
S. Ohkuma, M. Kishi, F.-H. Ma and K. Kuriyama

Instructions to contributors i

Forthcoming papers v

### Volume 16, Number 4

**Critical reviews and theoretical articles**

The treatment and management of neuroleptic malignant syndrome 425
S. S. Gratz, D. F. Levinson and G. M. Simpson

MRI-SPECT and PET-EEG findings on brain dysfunction in schizophrenia 445
W. Günther

**Full-length original papers**

*Clinical studies*

Effects of tobacco smoking on the topographic EEG II 463
E. F. Domino, M. Riskalla, Y. Zhang and E. Kim

The treatment of affective disorder with carbamazepine: prophylactic synergism of lithium and carbamazepine combination 483
A. Kishimoto

Thyrotropin responses to TRH and MHPG excretion before and after an electroconvulsive therapeutic course in depressed patients 495
L. Lykouras, M. Markianos, J. Hatzimanolis, D. Malliaras and C. Stefanis

**Volume 16, Number 4, *continued***

Disturbances in acute phase plasma proteins during melancholia: additional evidence for the presence of an inflammatory process during that illness 501
M. Maes, S. Scharpe, E. Bosmans, M. Vandewoude, E. Suy, W. Uyttenbroeck, W. Cooreman, C. Vandervorst and J. Raus

Effects of mianserin in chronic schizophrenia 517
Y. Mizuki, N. Kajimura, S. Kai, M. Suetsugi, I. Ushijima and M. Yamada

Daily activity and persistent sleep–wake schedule disorders 529
T. Ohta, T. Iwata, Y. Kayukawa and T. Okada

Adjunctive imipramine for dysphoric schizophrenic patients with past histories of cannabis abuse 539
S. G. Siris, P. C. Bermanzohn, S. E. Mason, A. Rifkin and J. Ma. J. Alvir

*Experimental laboratory studies*

Differential behavioral response in LEW/N and F344/N rats: effects of corticotropin releasing hormone 549
J. R. Glowa, E. M. Sternberg and P. W. Gold

Influence of the acute stress on agonist-stimulated phosphoinositide hydrolysis in the rat cerebral cortex 561
S. Morinobu, N. Kuwayama, T. Kawanami, N. Okuyama, M. Takahashi, S. Totsuka and M. Endoh

GABA receptor alterations after chronic lithium administration: comparison with carbamazepine and sodium valproate 571
N. Motohashi

Postnatal development of regional binding of corticotropin-releasing factor and adenylate cyclase activity in the rat brain 581
C. Pihoker, S. T. Cain and C. B. Nemeroff

Instructions to contributors i

Announcement v

Forthcoming papers vii

**Volume 16, Number 5**

**Critical reviews and theoretical articles**

Selective changes in mouse behavioral development after prenatal benzodiazepine exposure: a progress report 587
G. Bignami, E. Alleva, F. Chiarotti and G. Laviola

Do biochemical factors play a part in postnatal depression? 605
V. Glover

Culture of neuronal cells from postnatal rat brain: application to the study of neurotrophic factors 617
Y. Kushima and H. Hatanaka

## CONTENTS

### Volume 16, Number 5, *continued*

Social phobia: biological aspects and pharmacotherapy 635
N. L. S. Potts and J. R. T. Davidson

Neuroleptic-induced movement disorders and body iron status 647
P. Sachdev

Neuroendocrine markers of serotonin responsivity in depression 655
S. M. Stahl

**Full-length original papers**

*Clinical studies*

Early manifestations of dementing illness: treatment with glycosaminoglycan polysulfate 661
T. A. Ban, L. C. Morey, O. K. Fjetland, F. Rengo, N. Ferrara, V. Agnetti, M. D'Onofrio, G. Facchini, F. Anzivino, M. A. Perego, C. Danese, A. Capurso, A. Tommasi, G. Scardigli, G. Jans, L. Parnetti, U. Senin and B. Bergamasco

Efficacy and tolerability of flupenthixol decanoate in the treatment of depression and psychosomatic disorders: a multicenter trial in general practice 677
G. Budde

Valproate treatment of mania 691
H. M. Emrich and R. Wolf

Neuropsychological indicators of the vulnerability to schizophrenia 703
W. Maier, P. Franke, C. Hain, B. Kopp and F. Rist

*Experimental laboratory studies*

Actions of oxaprotiline in the rat hippocampal slice 717
S. Birnstiel and H. L. Haas

Chronic clozapine treatment down-regulates serotonin 5-HT-1c receptors in rat brain 727
J. Hietala, M. Koulu, M. Kuoppamäki, J. Lappalainen and E. Syvälahti

Effect of lithium on rod photoreceptor rhodopsin-coupled G-protein (transducin) 733
A. Sitaramayya and A. Margulis

Brain neuropeptides: changes by treatment with the convulsants pentylenetetrazole and bicuculline 747
C. Stenfors, E. Theodorsson and A. A. Mathé

Instructions to contributors i

Forthcoming papers v

# CONTENTS

## Volume 16, Number 6

**Critical reviews and theoretical articles**

A review of recently-developed ligands for neuronal benzodiazepine receptors and their pharmacological activities 755
C. R. Gardner

Effect of sedative drugs upon receptor binding *in vivo* 783
O. Inoue, K. Kobayashi and T. Suhara

Biological markers of depression: WHO multi-center studies and future perspective 791
T. Koyama and I. Yamashita

Schizophrenia and the D1 receptor: focus on negative symptoms 797
M. R. Lynch

The future of 5-$HT_{1A}$ receptor agonists (aryl-piperazine derivatives) 833
M. Murasaki and S. Miura

Rodent models of aggressive behavior and serotonergic drugs 847
B. Olivier and J. Mos

Regional glucose metabolism in schizophrenic patients before and during neuroleptic treatment 871
F.-A. Wiesel

**Full-length original papers**

*Clinical studies*

Neurotransmitter changes in early- and late-onset Alzheimer-type dementia 883
H. Arai, Y. Ichimiya, K. Kosaka, T. Moroji and R. Iizuka

Early serum levels of neuroleptics do not predict therapeutic response in schizophrenia 891
W. Gaebel, B. Muller-Oerlinghausen and J. Schley

Variation in evoked potential measures over the menstrual cycle: a pilot study 901
N. Kluck, S. O'Connor, V. Hesselbrock, A. Tasman, D. Maier and L. Bauer

RU486 in depression 913
K. R. R. Krishnan, D. Reed, W. H. Wilson, W. B. Saunders, J. C. Ritchie, C. B. Nemeroff and B. J. Carroll

Endocrine study of the maternity blues 921
T. Okano and J. Nomura

A preliminary study of serotonergic antidepressants in treatment of dysthymia 933
J. Rosenthal, C. Hemlock, D. J. Hellerstein, P. Yanowitch, K. Kasch, C. Schupak, L. Samstag and A. Winston

*Experimental laboratory studies*

Novel $Ca^{2+}$ currents in mammalian CNS neurons 943
N. Akaike, H. Yamanaka and M. Munakata

## CONTENTS

### Volume 16, Number 6, *continued*

Genetic analyses in neurons and neural crest-derived post mitotic cells 959
A.-L. Boutillier, F. Barthel, J. P. Loeffler, A. Hassan and B. A. Demeneix

Reducing the time needed to conduct conditioned place preference testing 969
D. J. Calcagnetti and M. D. Schechter

Modulation of NMDA receptors by ACh in the central nervous system 977
N. Harata, S. Ebihara and N. Akaike

Effects of disulfiram, phenoxybenzamine and propranolol on the behaviors evoked by apomorphine and amphetamine in adult cats 985
E. Motles, M. Tetas, A. Gomez, C. Briones and M. Gonzalez

Mechanisms of cocaine-induced sensitization 1003
B. A. Sorg and J. D. Steketee

Instructions to contributors i

Forthcoming papers v

Erratum vii